UNIVERSITÉ DE GENÈVE
FACULTÉ DES SCIENCES

LE DEPARTEMENT DE CHIMIE PHYSIQUE

a le plaisir de vous inviter à la

CONFERENCE

Intitulée

AN EXPERIMENTAL APPROACH TO MEASURE THERMODYNAMIC HYDRICITY OF HYDROSILANE

donnée par

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le MARDI 9 DECEMBRE 2025 à 16h30

SALLE 1S081
Sciences III

30 quai Ernest-Ansermet ou 4 bld d'Yvoy

Responsable : Prof. Ricardo FERNANDEZ-TERAN

Abstract:

Thermodynamic hydricity is a key parameter describing the energetics of hydride transfer, both in transition-metal hydride chemistry and in (electro-)catalytic applications where hydride is transferred between substrates. For transition-metal complexes and small-molecule hydride donors such as H_2 and formic acid, hydricities are well established and experimentally accessible. In this talk, I will describe our recent efforts to evaluate the hydricity of main-group compounds, specifically hydrosilanes. Using a combined electrochemical and spectroscopic approach, together with a careful selection of experimental parameters, we obtain thermodynamic hydricity values for these compounds. Finally, I will discuss the implications of these measurements for hydride transfer to and from hydrosilanes.